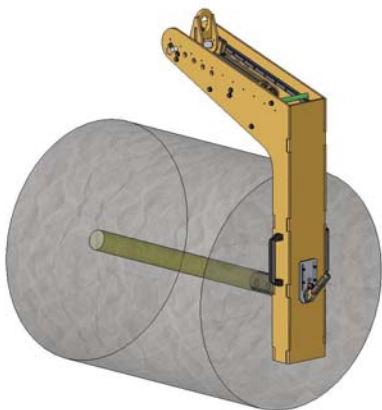
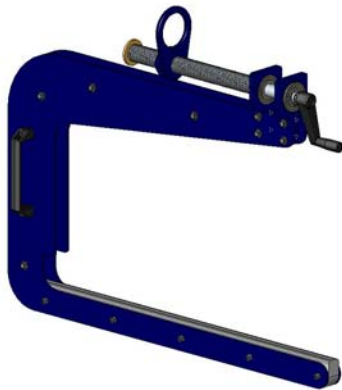
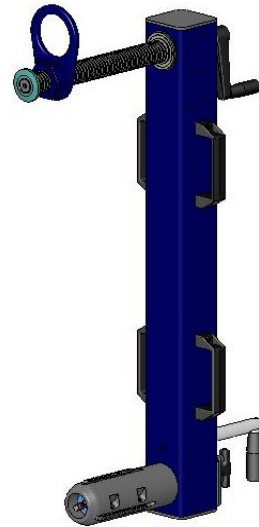
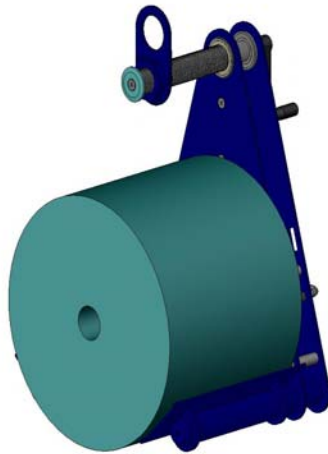
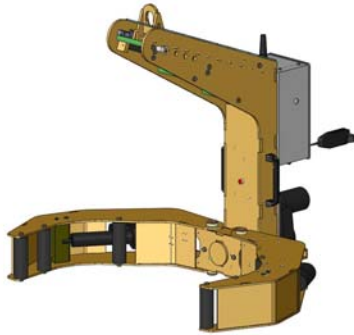




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## HRL User Manual

- **General guidelines for use**
  - Statement of purpose
- **Equipment capacity**
- **Installation**
  - Set-up guide
- **Operation**
  - Step-by-step operating procedure
  - Troubleshooting
- **Maintenance**
  - PM guide and schedule
  - Proper lubricants and fastener torques
  - Recommended spare parts
  - Service information
  - Care and maintenance documentation page
- **Manufacturer's declaration**
- **Mandrel operation**
- **Accessory operation**
- **Assembly drawings, spare parts lists & wiring diagrams**

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# HRL USER MANUAL

Page  
2

## General Guidelines On The Use Of Schlumpf Material Handling Equipment

### **General:**

Thank you for choosing to use Schlumpf material handling equipment for your handling applications and needs. All Schlumpf machinery is proudly designed, manufactured, assembled, and tested in the U.S.A.

This information is intended for use and review by maintenance and operating personnel before the equipment is operated or maintenance is performed. Schlumpf material handling equipment is high-value machinery and should be used and maintained with care. Please read these instructions carefully!

### **Safety:**

All equipment must be operated by trained personnel. Never touch any rotating machinery or machine parts until movement has completely stopped. Damage or injury may result!

### **Lifting Capacity / Permissible Use under Load:**

Maximum load allowances have been calculated for this equipment based upon operating data supplied to Schlumpf at the time of order. Maximum load values refer to the maximum weight of the material to be handled. Never exceed the maximum allowable load value for this equipment. Consult Schlumpf before using this equipment in any other application for which it was not originally intended. Damage or injury may result!

Schlumpf material handling machines are intended to lift, lower, insert, extract, and position rolls or other forms of material. The machine is not intended to lift material over the specified design weights supplied to Schlumpf at the time of order. Damage to the machine or operator injury may result!

### **Plant / Workplace Conditions and Operation:**

Machinery with which this Schlumpf equipment will be used should be in good repair and properly aligned (spindle to spindle axis, web path axis, etc.). Misalignment will cause adverse affects that may hamper desired operation and will increase the rate of wear of Schlumpf and other equipment.

### **Maintenance and Warranty:**

To assure safe and proper operation of this and other equipment, follow preventative maintenance guidelines set forth in this manual\* and any additional instructions prescribed by the manufacturer of the equipment on which your Schlumpf product will be used.

Periodically check screws and bolts for proper tightness as fasteners can loosen due to vibration. This product should be kept clean and free of foreign matter. Replace any and all damaged parts immediately.

***\* Warranty claims can not be accepted unless proof of periodic maintenance (according to the guidelines set forth in this manual) can be furnished by the user.***

### **Lubrication:**

For lubrication of moving or gliding surfaces we recommend the use of a high quality grease such as Jet-Lube Clear-Clean Lubricant with PTFE.

If alternative products are used it is important that they meet the following requirements: high adhesion of the lubricant, high and permanent lubricate under load, little or no attraction of dust, contains no dangerous or hazardous propellants, gases, or ingredients that may be harmful to the environment or operators.

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# HRL USER MANUAL

Page  
3

## Service:

Service and maintenance should be performed only by trained personnel following the guidelines established in this installation, operation, and maintenance manual. Damage or injury may result if established procedures are not followed! Please consult Schlumpf with any questions or problems you may have with this or any other Schlumpf equipment.

## Spare Parts And Tools:

Use only Schlumpf spare and replacement parts or those recommended by Schlumpf. Use of any other parts will void your product warranty! Tools, metric fasteners, metric components, or any other special related items required for the maintenance of Schlumpf equipment are available from Schlumpf.

## Transport Damage:

Schlumpf equipment is thoroughly tested and carefully packaged prior to shipment. If your unit was damaged in transport, contact the shipper immediately. Make sure that you contact the transporter within 24 hours of the receipt of the machine and, preferably, do not sign a receipt for the machine without noting the damage on the bill of lading. Call Schlumpf immediately! Do not try to operate the equipment. Damaged parts which have not been reported immediately to Schlumpf will not be replaced under warranty.

## Equipment and Operating Safety:

This equipment was manufactured in accordance with the acknowledged regulations of the technology involved and has been thoroughly tested under load. Before placing the unit into service, check for possible transport damage and review this manual with all potential operators of the equipment. Thoroughly test the equipment unloaded before attempting to handle any kind of load.

Follow these guidelines for operating safety:

## "WARNING"

- Never step under or stand under suspended loads.
- In principle, the operator stands behind or to the side of the unit, never to the front.
- Only the operator should remain within the working radius of the equipment.
- Always work within the permissible load capacity of the Schlumpf equipment and hoist system.
- Only allow trained maintenance personnel to service and repair the equipment.
- Use only Schlumpf accessories and spare parts.
- Always unload the equipment before lowering the unit to the floor or taking the unit out of service.
- Never exceed Schlumpf capacities for maximum roll or material weight and dimensions.
- Schlumpf equipment is designed to lift material only. Never lift personnel.
- Operators and personnel should never stand or ride on the machine.
- The maximum load capacity of all Schlumpf equipment is clearly labeled on the machine itself. Never exceed the load capacity of the unit. Damage, extreme wear and operator injury may result.

**Closely follow the recommendations and instructions of the manufacturer of purchased system components. Failure to do so can result in equipment damage and/or serious operator injury!**

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## Statement Of Purpose

Schlumpf material handling equipment has been designed to operate as mechanical lifting, turning and positioning devices for the handling of rolled materials in a (core) horizontal and / or vertical orientation.

Schlumpf hoist-based equipment is for use with cranes and overhead hoists within the operating perimeter of the material handling plant or workspace and may be used only for this purpose. The hoist or crane on which Schlumpf hoist-based material handling equipment is used should have the capability of being rendered inoperable with an Emergency stop switch.

Schlumpf portable / floor-based equipment is for use within the operating perimeter of the material handling plant or workspace with a solid concrete or comparable floor and may be used only for this purpose.

Consult Schlumpf if the unit is to be used with materials other than rolled (cored) materials, or other than what the equipment was originally specified and designed.

Schlumpf standard mandrels are designed to handle materials with a paper/cardboard core. If the core of the material to be handled has been changed or is not paper/cardboard, special modifications to the grippers must be made. This includes, but is not limited to, steel, plastic and aluminum cores.

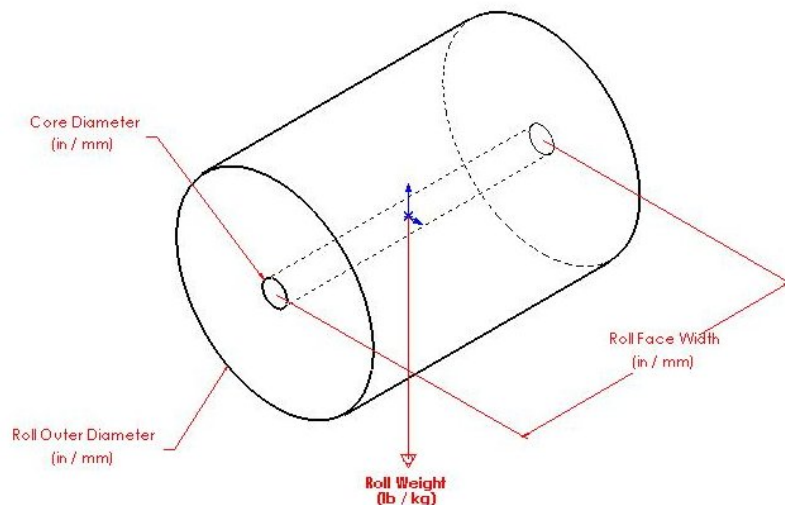
Schlumpf mechanically expanding mandrels are "fail safe", self tightening, and can only be disengaged from the core by the operator.

## CAUTION!

Schlumpf material handling equipment is for use under operating conditions supplied to Schlumpf at the time of order. As such, it may not be possible to safely use the machine for any conditions beyond the stated capacities and specifications. Please consult Schlumpf when a change in operating parameters may affect the unit's safe and proper use.

Schlumpf equipment has been clearly labeled with warning and informational signs. For your safety, read and obey all labeling on your machine.

Load capacity, when handling and manipulating a rolled/cored bundle of material, is a function of roll weight vs. roll face width. A load capacity curve has been generated for most Schlumpf handling equipment and is located on the capacity page for the specific equipment pertaining to this manual. Do not exceed maximum capacity! Serious injury or equipment damage will result!



# HRL USER MANUAL

Page  
5

## Equipment Specifications And Capacities

The capacity for the HRL is clearly labeled on the unit itself.

**MAX Roll Weight:** see capacity label/spec sheet in back of manual

Max Roll O.D.: See spec sheet in back of manual

Max Roll width: See spec sheet in back of manual

Machine Weight:: See spec sheet in back of manual

### For powered OD clamp unit:

Power Source:	115VAC / 230VAC
Switching:	Normally open relays.
Operator Interface:	Handheld pushbutton controller
clamp mechanism:	90VDC electric linear actuators
Pivot mechanism:	115V / 230V high-torque gearmotor

**DUTY CYCLE:** 25% MAX (3min cool-down per 1min use)

## CAUTION!

The HRL is for use under operating conditions supplied to Schlumpf at the time of order. As such, it may not be possible to safely use the machine for any conditions beyond the stated capacities and specifications. Please consult Schlumpf when a change in operating parameters may affect the unit's safe and proper use.

The HRL is clearly labeled with a load capacity sticker. Do not exceed the maximum roll weight.  
Serious injury or equipment damage will result!

### Example of capacity label on HRL:



(\*actual weight, width and diameter capacities will vary!)

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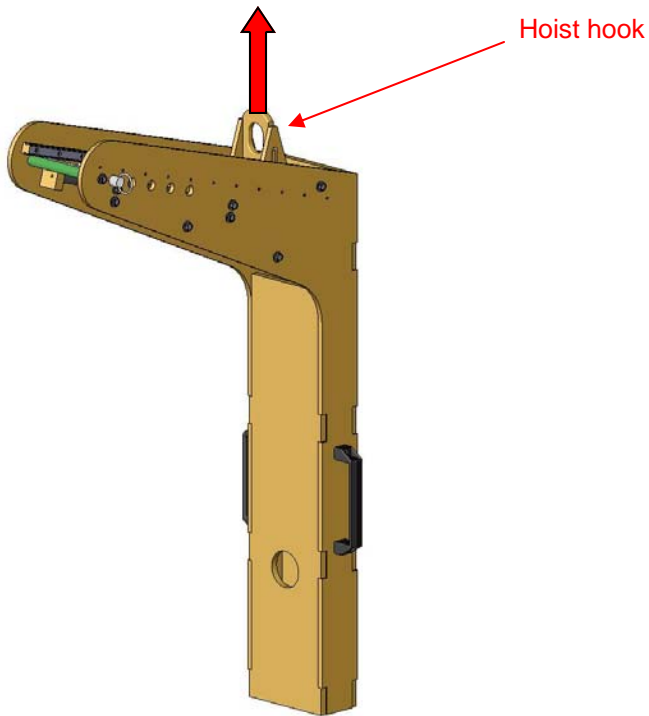
# HRL USER MANUAL

Page  
6

## Set-up (1000-AL)

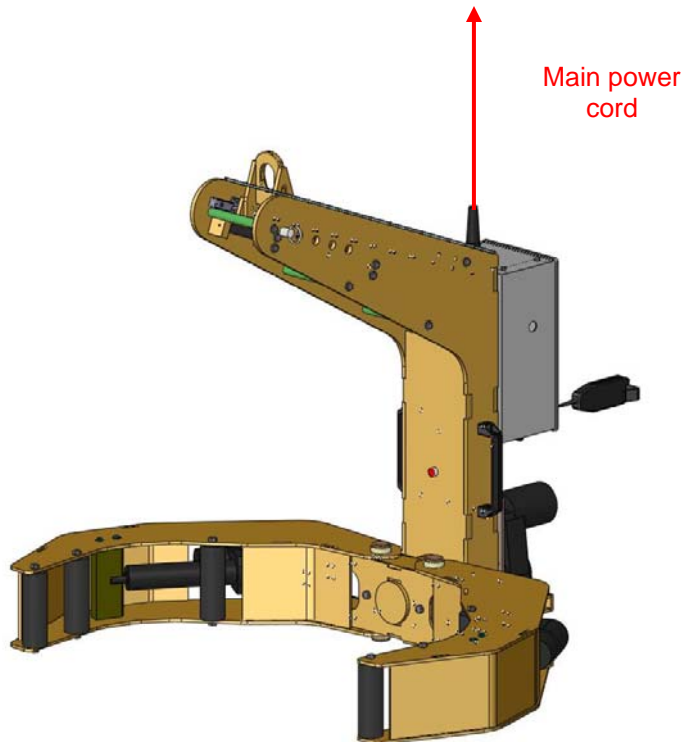
The HRL comes ready-to-use from the factory.

Suspend the HRL unit from a hoist that is in good working order and that has been properly inspected and maintained.



**Units with powered OD clamp tooling:**

Plug the power cord into a properly grounded, 115V / 230V power outlet.



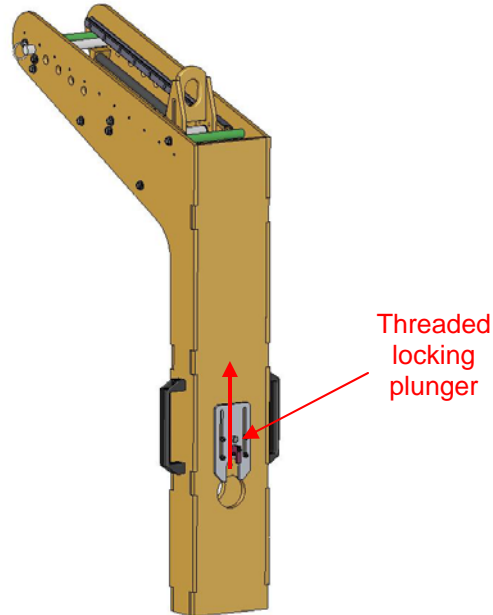
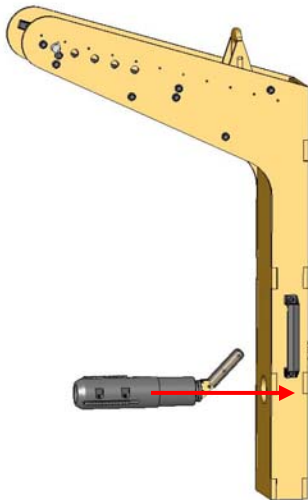
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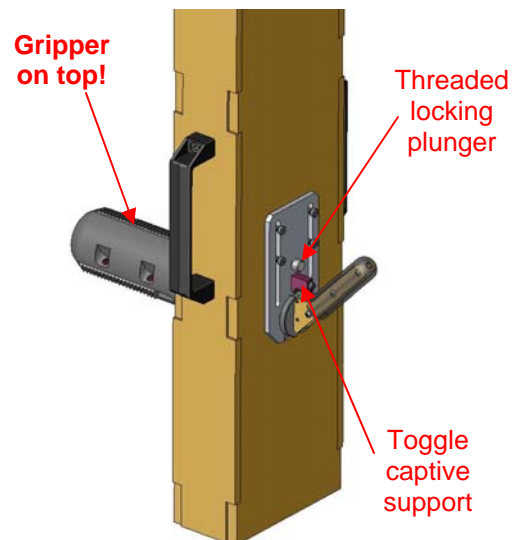
## Set-up (1000-AL)

### Mandrel installation

1. unlock the threaded plunger and slide the mandrel plate up away from the mandrel hole.



2. Slide the mandrel into the mandrel hole as shown.



3. Slide the mandrel locking plate around the neck of the mandrel.

Thread the locking plunger back into the locked position.

The toggle captive support should lock the mandrel from rotating.

**LOAD MANDREL SO A GRIPPER IS TOP CENTER WHEN LOCKED IN PLACE.**



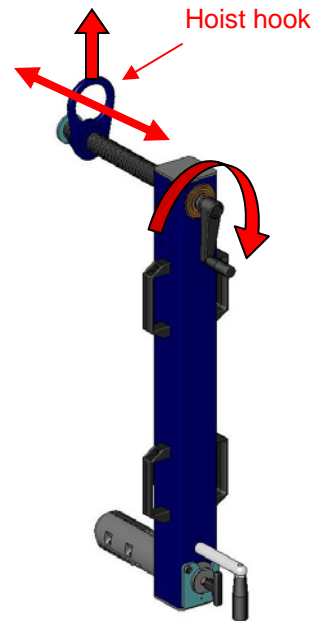
# HRL USER MANUAL

Page  
8

## Set-up (330)

Suspend the HRL unit from a hoist that is in good working order and that has been properly inspected and maintained.

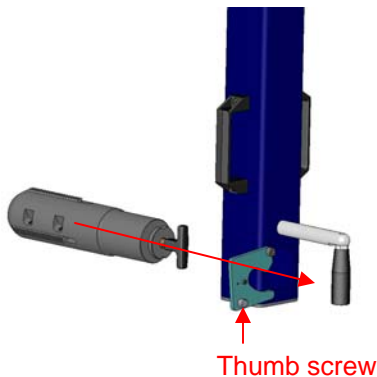
Adjust the center-of-gravity screw towards the main vertical body of the HRL so the unit hangs horizontal.



## Mandrel installation

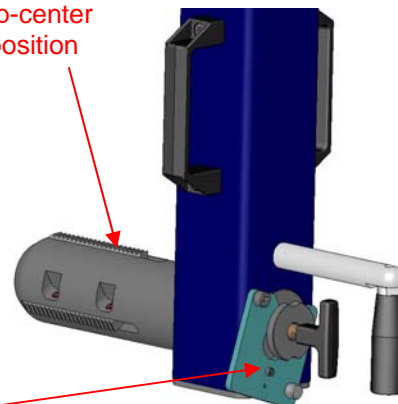
Unlock the threaded thumb screw on the mandrel plate and swing it to the open position.

Insert the mandrel into the mandrel housing.



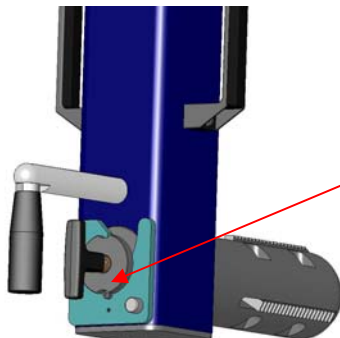
With the mandrel inserted all the way, swing the locking plate around the neck of the mandrel. Twist the mandrel so the cap screw on the mandrel plate locks into the notch on the mandrel neck.

Gripper in  
top-center  
position



Cap screw and  
mandrel notch

Lock the mandrel plate into  
place with the thumb screw.



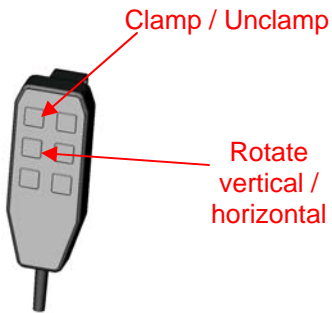
**ALWAYS LOAD MANDREL WITH ONE GRIPPER ON TOP-CENTER POSITION. SEE ABOVE.**

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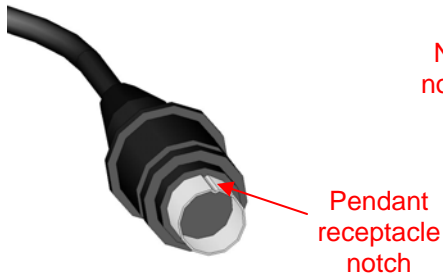


## Set-up (OD clamp)

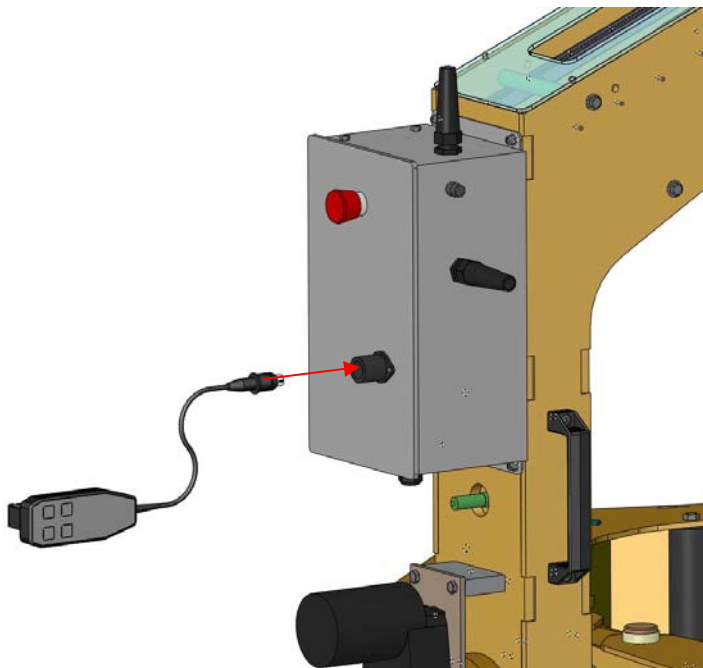


Use the handheld control pendant to operate all functions of the HRL-OD clamp unit.

**Plug the handheld controller into the control box.**



**NOTE!** Control pendant and receptacle have locking grooves and notches! Do not force the pendant into the receptacle; damage may result!



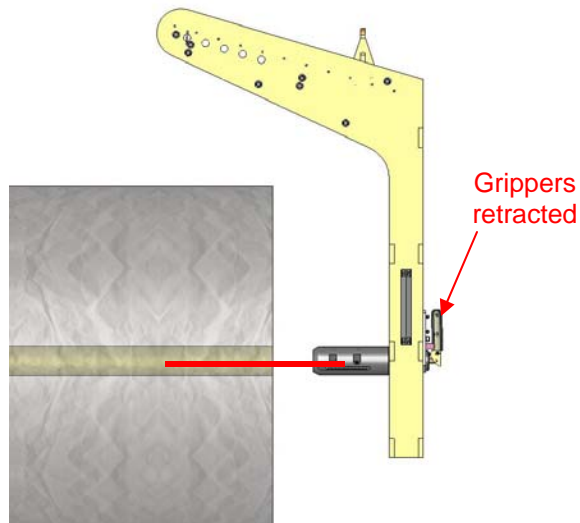
## Operation

Move the unit towards the roll to be handled.

Raise / lower the unit on the hoist so the mandrel is in line with the core of the roll.

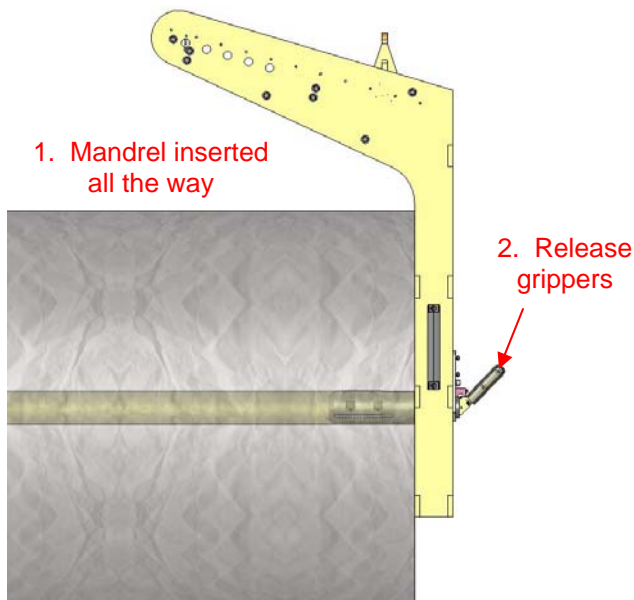
Press "Up" / "Down" on the hoist controls.

Retract the mandrel grippers.



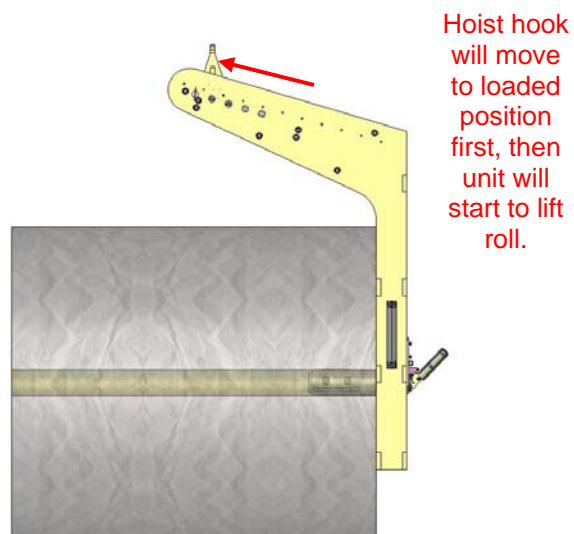
Keep the grippers retracted and insert the mandrel into the core until the HRL frame bumps against the face of the roll.

Release the mandrel grippers once the mandrel is all the way into the core of the roll.



The auto-level hoist hook will travel to the loaded position *before* the unit starts to lift the roll.

Press "Up" on the hoist controls.



# HRL USER MANUAL

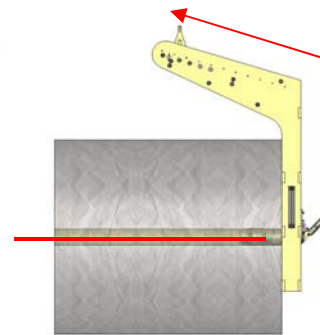
Page  
11

## Operation (Auto-Level feature)

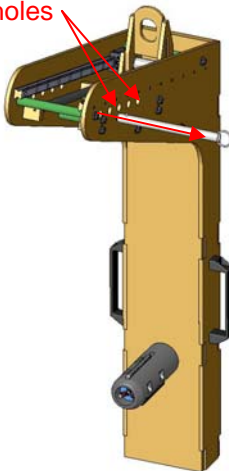
\*The pin will need to be properly set before lifting a load. Trial-and-Error may be used to find the correct position for the pin with certain rolls of specific weight & width.

Lift the roll with the HRL unit using the hoist controls. Once the hoist travels to the loaded position, the roll should hang horizontal\*.

Press "Up" on the hoist controls.



Auto-level pin  
locating holes

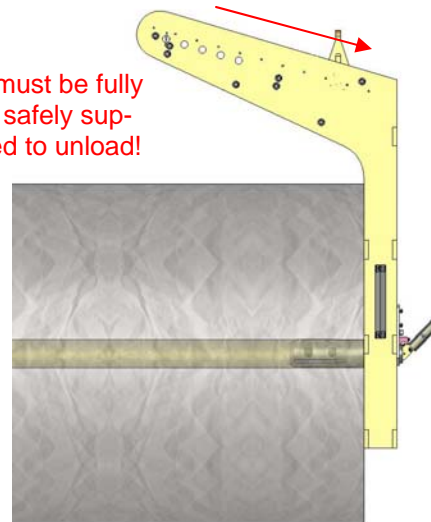


\*If the roll is not horizontal, the auto-level adjustment pin can be moved to accommodate different roll sizes.

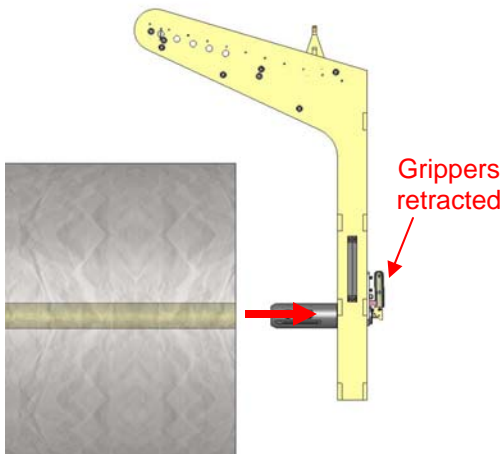
Load the roll back onto the spindle or pallet so it is fully supported before moving the pin.

Pull the pin out of the locating hole and move it to a different position.

Roll must be fully  
and safely sup-  
ported to unload!



Let hoist  
hook  
travel to the  
unloaded  
position  
before  
extracting  
mandrel



Load the roll with the HRL in the desired position so it is fully and safely supported.

lower the hoist so the HRL hoist hook returns to the unloaded position.

Press "Down" on the hoist controls.

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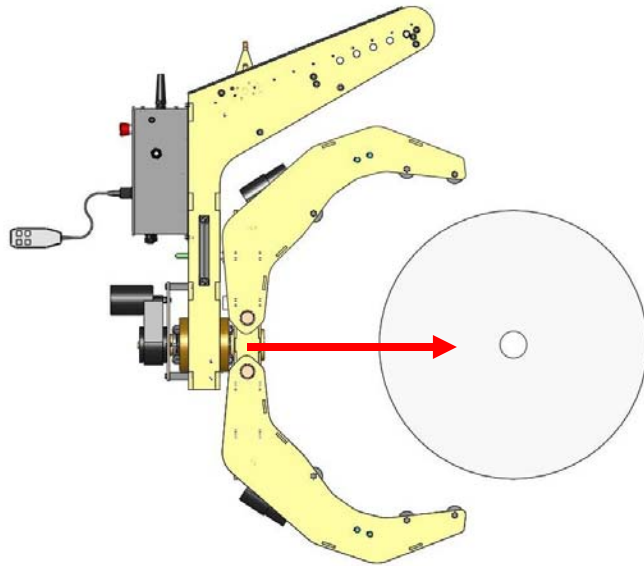
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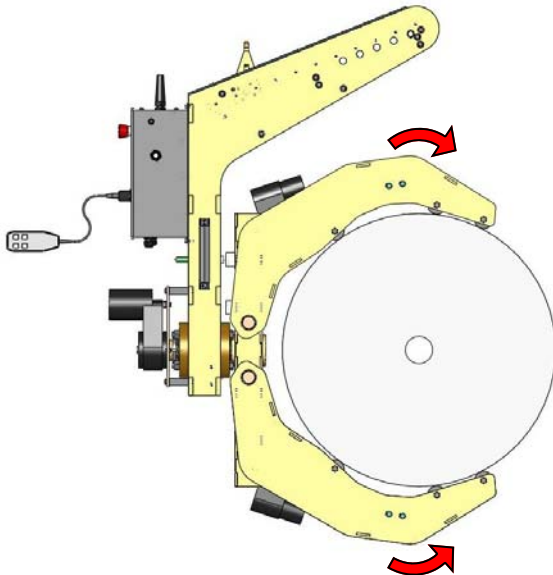
Page  
12

## Operation (OD clamp)

Move the HRL to the roll that is to be handled and center the clamp with the roll, as shown to right.

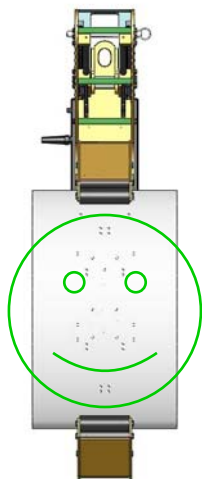


Move the unit forward so the clamp arms are surrounding the roll.



Clamp the roll until the clamp arm actuators ratchet for 1 second.

**DO NOT OVERCLUTCH ACTUATORS! ELECTRIC ACTUATORS ARE EQUIPPED WITH A SLIP CLUTCH FOR REACHING END-OF-STROKE. DO NOT LET ACTUATOR CLUTCH RATCHET CONTINUOUSLY. OVERCLUTCHING ELECTRIC ACTUATORS WILL CAUSE PREMATURE WEAR AND DAMAGE!**



**CAUTION!**  
Always clamp the roll in the **center**. Do not clamp the roll so it is off center from the clamp (see right). Failure to clamp the roll on center will result in equipment damage and / or personal injury!



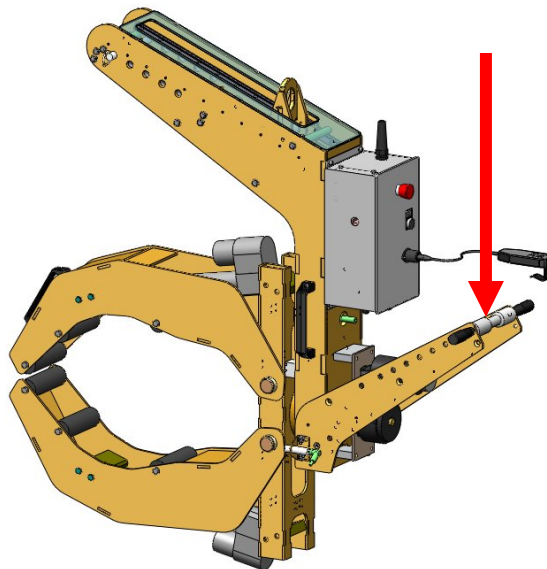
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## Operation (OD clamp)

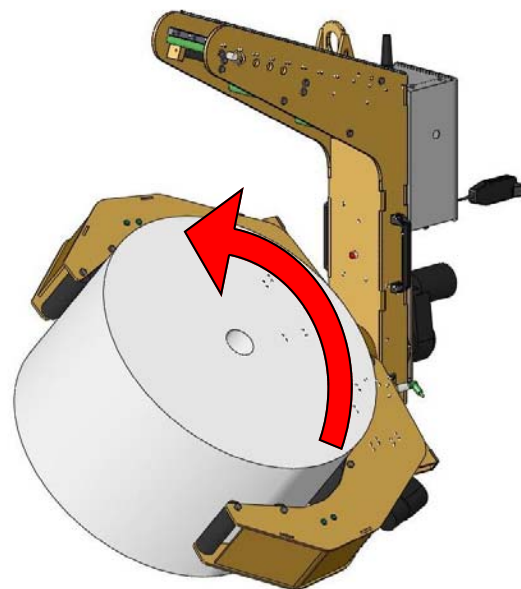
Once the roll is clamped, lift the roll and unit with the hoist and move it into a clear area.

**Tip: If the auto-leveling mechanism does not adjust as the roll is being raised, lower the roll. Apply a downward force on the handlebar and lift the roll again.**



When the roll and unit are clear from other equipment and obstructions, rotate the roll to the desired orientation.

Press the “Vertical” or “Horizontal” key on the hand-held pendant.

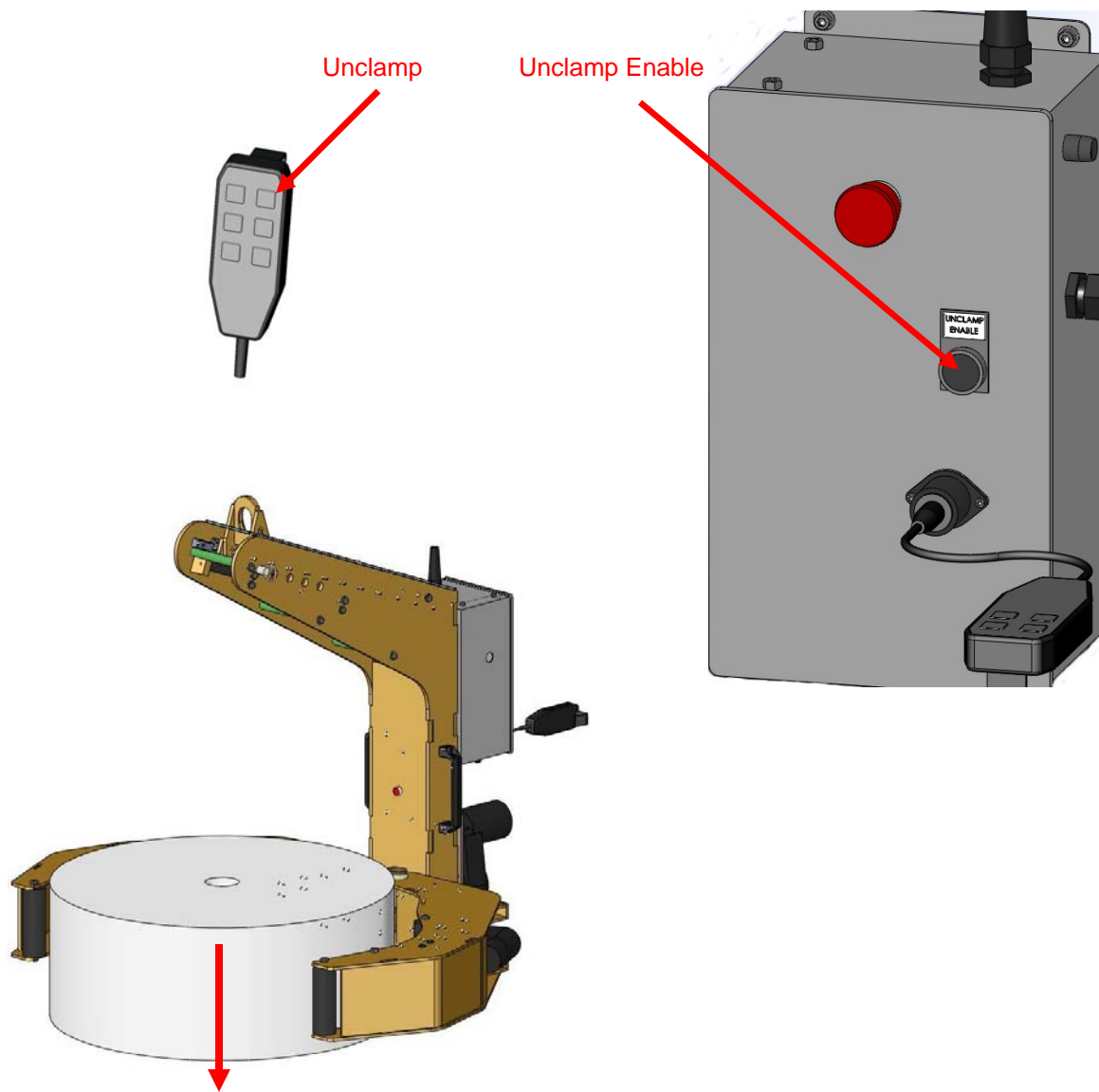


## Operation (OD clamp)

Raise / lower the roll as needed and load the roll in the desired location, so it is fully and safely supported.

Release the roll by opening the clamp arms.

Press both the “Unclamp” key on the handheld pendant AND the “Unclamp Enable” button on the control box.





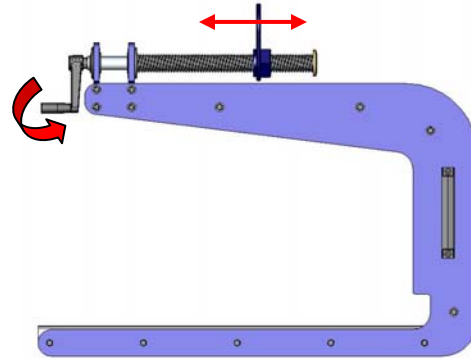
# HRL USER MANUAL

Page  
15

## Operation (200 or 330)

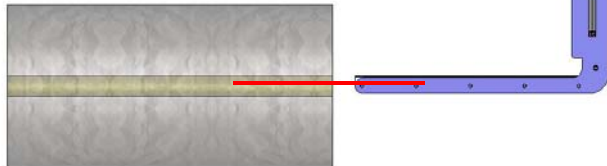
Suspend the HRL unit from a properly functioning, well-maintained hoist.

Adjust the center-of-gravity screw so the unit hangs horizontally (as shown).



### Handling a roll:

Move the unit towards the roll to be handled.



Raise / lower the unit on the hoist so the probe lines up with the core of the roll.

Press “up” / “down” on the hoist controls.

Insert the probe into the core of the roll, until the roll bumps against the vertical frame of the unit (see below).

Hoist hook is above center of roll



Adjust the center-of-gravity hoist hook near the center of the roll, as shown, before lifting the roll with the HRL.

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Page  
16

## Operation (200 or 330) (cont'd)

Lift the unit loaded with the roll with the hoist.

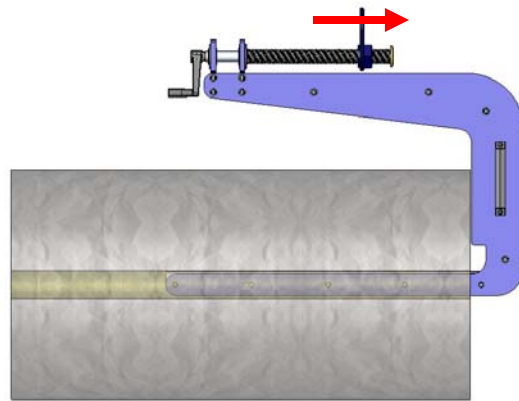
Press “up” on the hoist controls.

Transport the roll to the desired location using the control handle on the unit.

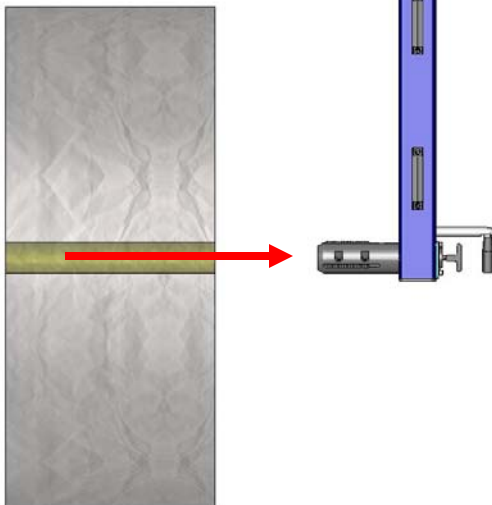
**USE BOTH HANDS AT ALL TIMES.**

Place the roll in the desired location so it is **FULLY AND SAFELY SUPPORTED**.

Adjust the center-of-gravity suspension screw so the hoist hook is in the unloaded position (see right), before extracting the HRL probe from the roll.



Adjust hoist hook  
before unloading  
roll!



When using units with auto leveling, the hoist hook will automatically return to the unloaded position.

Extract the HRL probe from the core or for units with mandrels retract the mandrel grippers and with the grippers retracted extract the mandrel from the core.

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# HRL-C USER MANUAL

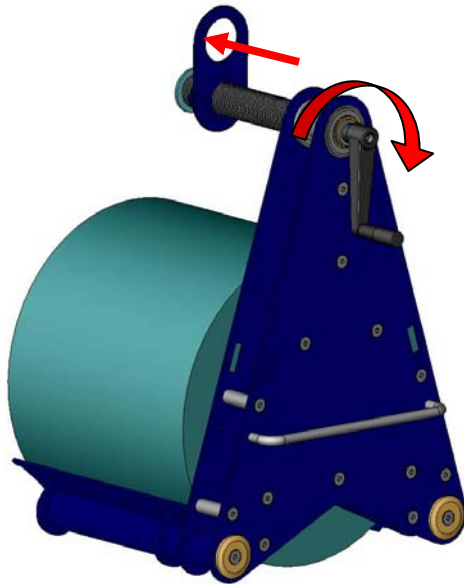
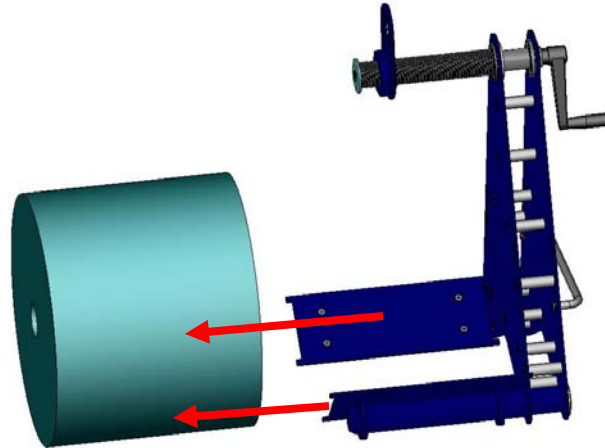
Page  
17

## Operation (C)

Move the unit towards the roll to be handled.

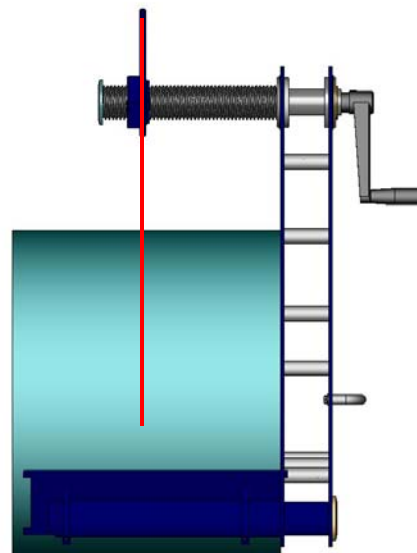
Raise / lower the unit on the hoist so the probes / cradle pads will slide underneath the roll.

Press “up” / “down” on the hoist controls.



Slide the HRL probes / cradle pads underneath the roll until the roll bumps against the frame plate.

Hoist hook is above  
center of roll



Adjust the center-of-gravity suspension screw so the hoist hook is near the center of the roll.

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# HRL-C USER MANUAL

Page  
18

## Operation (C) (cont'd)

Strap the roll onto the unit with the adjustable strap provided.

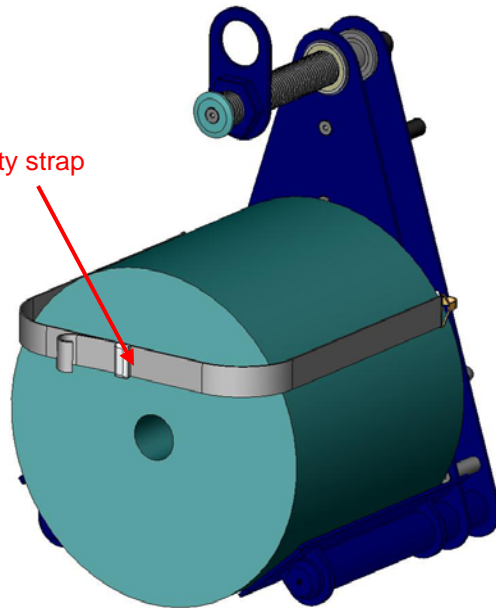
Lift the unit loaded with the roll with the hoist.

Press "up" on the hoist controls.

Transport the roll to the desired location using the control handle on the back of the unit.

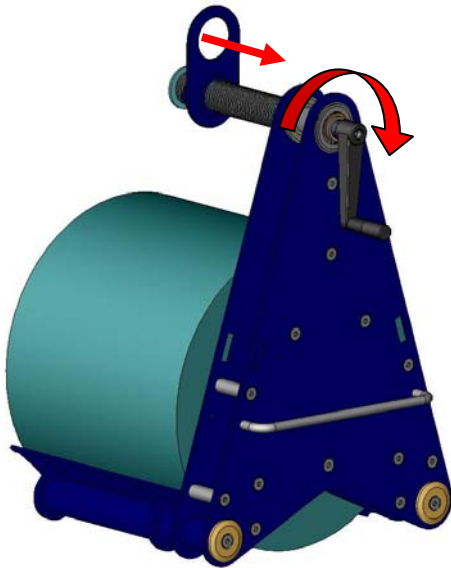
**USE BOTH HANDS AT ALL TIMES.**

Safety strap



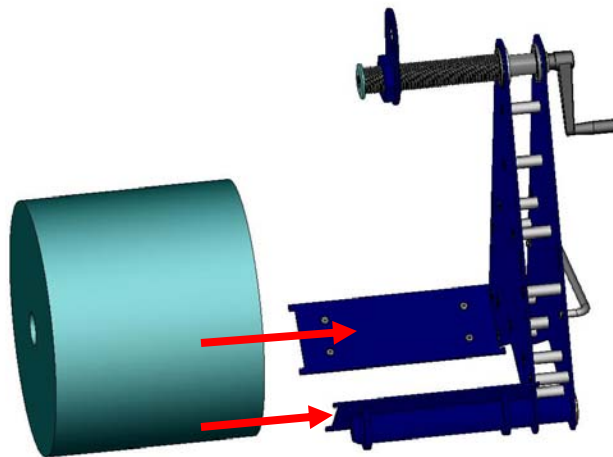
Place the roll in the desired location so it is **FULLY AND SAFELY SUPPORTED**.

Un-strap the roll from the unit.



Adjust the center-of-gravity suspension screw so the hoist hook is near the frame of the unit.

Slide the probes / cradle pads out from underneath the roll and move the unit away.



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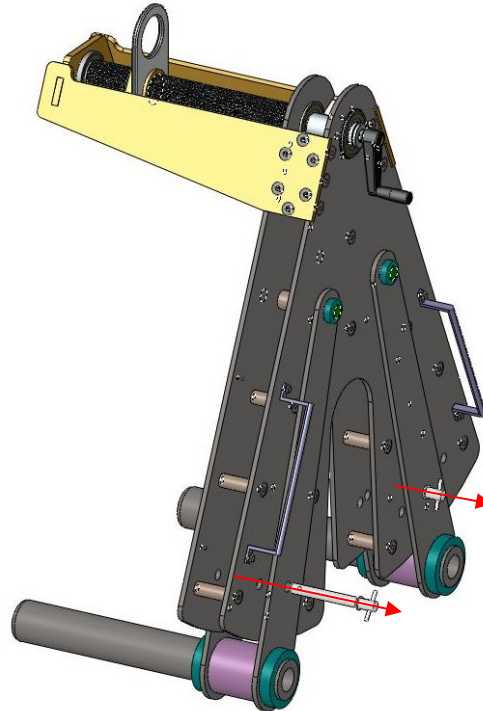
Page  
19

## Operation (C with adj. probes)

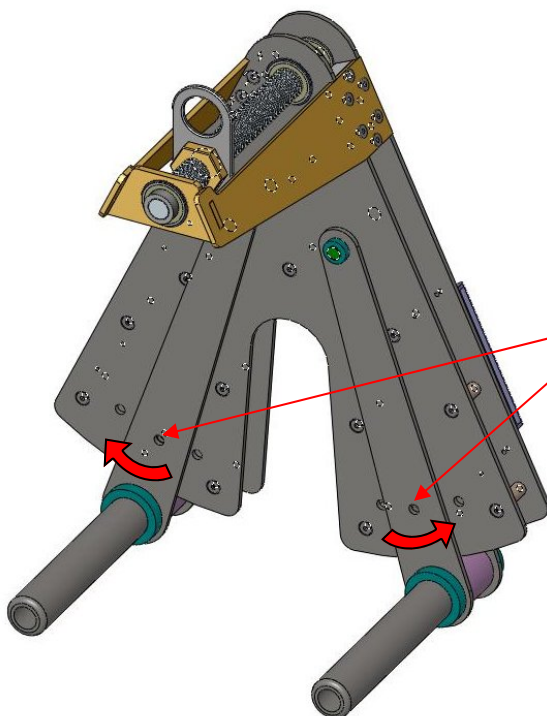
Units with adjustable cradle probes can be adjusted to handle a large range of roll O.D. sizes.

To adjust the cradle probes, pull the locking pins out of the cradle arms from the back of the unit, as shown.

Refer to the spec drawing in the back of the manual for the proper cradle arm setting for different roll sizes.



Adjust the cradle probes to the proper position and lock them in place by replacing the locking pins.



Both probes  
locked in same  
position!

**CAUTION:**  
Both probes must be locked in the  
same position so the roll is centered  
on the unit!

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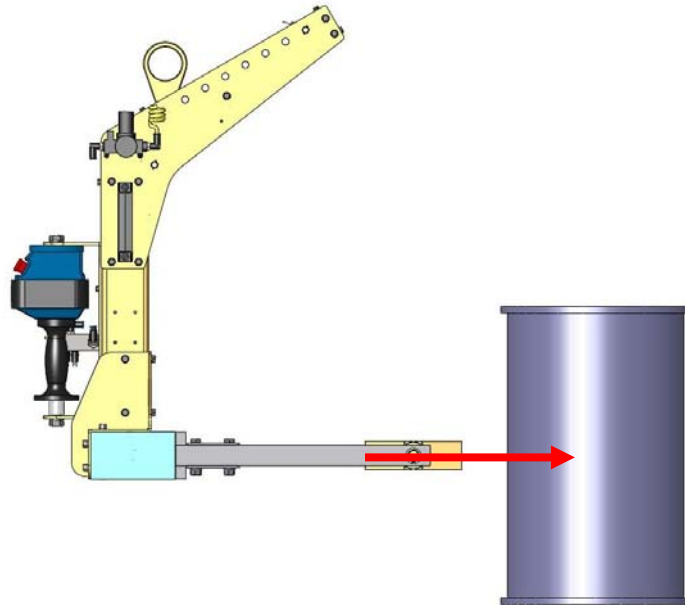
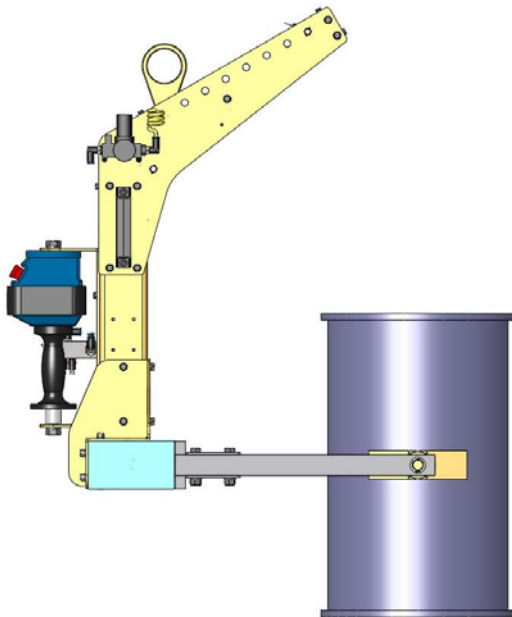
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# HRL USER MANUAL

Page  
20

## Operation (330-AL-OD clamp)

Move the HRL to the roll that is to be handled and center the clamp with the roll, as shown to right.

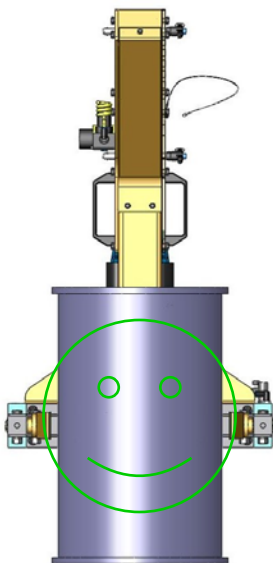


Move the unit forward so the clamp arms are around the roll.

Clamp the roll until it is clamped securely.

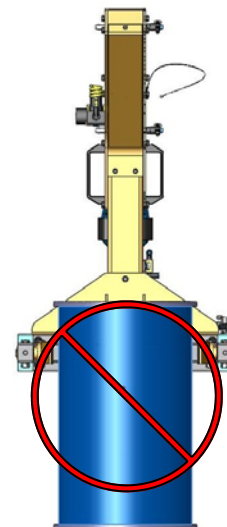
Raise / lower the roll as needed and load the roll in the desired location, so it is fully and safely supported.

Release the roll by opening the clamp arms.



### **CAUTION!**

Always clamp the roll in the **center**. Do not clamp the roll so it is off center from the clamp (see right). Failure to clamp the roll on center will result in equipment damage and / or personal injury!



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## Troubleshooting

Please refer to the following list of potential problems and their solutions if the HRL is not functioning normally before calling Schlumpf. We'll ask you the same questions!

**Note: Continual misuse of this product will cause extreme wear and increase the potential for operator injury. Units damaged in this manner should be removed from service immediately and returned to Schlumpf for repair.**

### 1. The auto-leveling mechanism will not level a roll or adjust properly:

- **Dilemma:** The auto-level adjustment pin is not in the correct position.
  - **Solution:** Lower or raise the unit so the load is fully supported. Adjust the pin to the correct position. Follow operation instruction # 8.
- **Dilemma:** There is an obstruction inhibiting the travel of the auto-level bearings.
  - **Solution:** Remove the unit from service to clean and lubricate the bearings and rails. Forcing the unit to move may result in equipment damage and premature wear.
- **Dilemma:** The roll to be handled is outside of the unit's capacity.
  - **Solution:** The HRL unit was designed to handle a specific range of roll weights and sizes. Refer to the capacity labels on the unit and adhere to the maximum rated capacities. If the rolls specifications have changed for the application, contact Schlumpf immediately.

### 2. The OD clamp unit will not rotate the roll:

- **Dilemma:** The roll is not on center with the clamp tooling.
  - **Solution:** Release the roll and re-clamp it with the clamp tooling centered correctly. Refer to page 11 for proper clamp position instruction.

### 3. The center-of-gravity adjustment is strained or will not adjust properly:

- **Dilemma:** The unit is not supported when trying to adjust the center-of-gravity mechanism.
  - **Solution:** Lower or raise the unit so the load is fully supported. The unit should always be supported when trying to adjust the hoist hook position.
- **Dilemma:** There is an obstruction inhibiting the travel of the hoist hook weldment.
  - **Solution:** Remove the unit from service to clean and lubricate the screw. Forcing the unit to move may result in equipment damage and premature wear.
- **Dilemma:** The crank handle for the adjustment screw is loose or broken.
  - **Solution:** inspect the M5 set screw, p/n P-10073, holding the hub of the handle in place. If it is loose or missing, it will have to be tightened or replaced. Refer to the spare parts lists supplied in the back of this manual to locate the set screw.



## 4. The mandrel will not grip the core of the roll:

- **Dilemma:** The mandrel is not the correct size for the roll core.
  - **Solution:** Do not attempt to handle a roll with a core that is larger than the mandrel and its expansion range. This will create an unsafe handling environment.
- **Dilemma:** The mandrel grippers do not successfully grip / engage with the roll core.
  - **Solution:** Do not attempt to handle the roll if the mandrel grippers do not engage with or create excessive damage to the roll core. Contact Schlumpf, Inc. to request an alternative gripper profile.

## 5. The mandrel will not extend / retract properly:

- **Dilemma:** The mandrel requires lubrication.
  - **Solution:** Remove the unit from service. Thoroughly lubricate the toggle handle, gripper pins, and other moving parts of the mandrel. Refer to the following pages for proper lubricants.
- **Dilemma:** There is debris inhibiting the movement of the mandrel parts.
  - **Solution:** Remove the unit from service. Thoroughly clean the mandrel of all debris. Lubricate all moving parts when the unit is clean. Refer to the following pages for proper lubricants.



## Periodic Maintenance

Generally, Schlumpf handling equipment is maintenance free. However, all mechanical equipment should be inspected periodically for safety, proper function, lubrication, and wear. This care will ensure years of trouble-free performance from Schlumpf equipment.

The check should be performed by trained maintenance personnel and a written record of the inspection should be maintained in accordance with regulations covering "load lifting devices". A tabulated page is located in this manual for keeping care and maintenance records. Schlumpf will, for a nominal fee, perform the inspection and submit a written report on all services. Contact Schlumpf for further information.

### All Schlumpf HRL units should be Cared for According to this schedule\*:

- **DAILY:**
  - **Inspect the lifter for worn, damaged, or missing parts & fasteners.**
  - **Inspect the normal operation:**
    - The auto-level mechanism operates smoothly.
    - The mandrel is locked in place and expands and retracts correctly.
    - The OD clamp and rotate functions operate through entire range.
    - The center-of-gravity adjustment screw/mechanism operates smoothly.
    - The mandrel retracts / expands properly.
- **MONTHLY: (remove unit from service)**
  - **Lubricate all moving parts and linear motion components. Refer to page 13 for proper lubricants**
    - Auto-level bearings and rails
    - OD clamp pivot bearings
    - Center-of-gravity suspension screw
    - All other metal-on-metal or moving parts
  - **Disconnect power to the control box. Open control enclosure and inspect for loose / damaged wires and components. *This should only be performed by a trained electrical technician.***
  - **Check all fasteners on the unit and tighten to the proper torque if loose.**
- **YEARLY: (remove unit from service)**
  - **Disassemble mandrel and inspect gripper pins and gripper segments for wear and damage. Replace any pins and grippers that show excessive wear.**

\* **Schedule is based on one shift per day.** The time intervals between service may need to be reduced, depending on the amount of use and the environmental conditions present in your application (i.e., a machine used in a dusty environment may need to be cleaned and lubricated more often).

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## Fastener torque

Fasteners should always be installed to their proper tightening torque. The table below shows the recommended tightening torques for standard metric screws.

Size	Torque (N-m)	Torque (lb-in)
M4 x 0.7	5.8	52
M5 x 0.8	12	106
M6 x 1.0	20	179
M8 x 1.25	49	430
M10 x 1.5	97.5	863
M12 x 1.75	165	1460
M16 x 2.0	412	3650

## Lubricants & Thread locking fluids

Schlumpf recommends the following compounds & fluids or their equivalent be used to provide care and maintenance for material handling equipment:

- **Bearing lubricant**
  - Jet-Lube Clear-Clean Lubricant with PTFE
- **Metal-on-metal lubricant**
  - Motorex Universal 2000 spray lubricant
- **Fastener thread locking**
  - Loctite 242 (Blue) medium-duty threadlocker

## **CAUTION!**

*Damaged or worn parts should be replaced immediately! Many Schlumpf parts have specific surface treatment and especially heat treatment. Use only Schlumpf spare and replacement parts. Failure to do so may result in damage to the equipment or process! Never alter tooling or lift carriage parts without first consulting Schlumpf. Damage or injury may result. Always unplug the power cables before servicing Schlumpf machines.*

# HRL USER MANUAL

Page  
25

## Recommended spare parts

Spare parts lists, assembly specifications, and in the case of units with integral controls, wiring diagrams, are attached to the back of this manual for the HRL lifting unit. Copies of the spare parts list are available upon request.

Recommended spare parts to be kept on hand, per unit, are indicated on the spare parts list drawings in the back of the manual. They have an asterisk at the end of the part number.

Example:

P-10186\*                      Crank handle

## Service Information

To arrange for service on any Schlumpf roll handling devices, contact Schlumpf at the following address:

Schlumpf, Inc.  
15 Enterprise Drive  
Windham, Maine 04062-5650 U.S.A.  
Tel: 207-893-1903  
Fax: 207-893-1905  
E-mail: mail@schlumpf-inc.com  
Internet: www.schlumpf-inc.com

Be prepared to supply the following information:

1. HRL Serial No. (L-XXXXX).
2. Description of service required or nature of problem.
3. Original Purchase Order No.
4. Schlumpf Invoice or Sales Order No.
5. Date of purchase.
6. Your name, address, telephone No. , fax No. or other contact information.
7. Purchase Order for service.

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# HRL USER MANUAL

Page  
26

## Notes & Maintenance Records:

Desription of Care / Maintenance Performed:	Date Performed:	Maintenance Performed by:

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# HRL USER MANUAL

Page  
27

## Manufacturer's Declaration:

Manufacturer and Distributor:

Schlumpf, Inc.  
15 Enterprise Drive  
Windham, Maine 04062-5649 U.S.A.

Tel: 207-893-1903  
Fax: 207-893-1905  
E-mail: mail@schlumpf-inc.com  
Internet: www.schlumpf-inc.com

Declares that this Schlumpf Type HRL roll lifter has been designed and manufactured according to known engineering and safety specification and regulations.

This unit was made in the U.S.A. with materials and components known to be of high quality. The use of the equipment is governed by local, state and federal safety regulations.

## Warranty Statement:

Seller warrants that the products sold will be free of defects in material and workmanship for a period of one year (365 days) when used on a one shift per day (not more than eight hours) basis, six months (180 days) when used on a two or three shift per day (more than eight hours) basis, from the date of delivery unless otherwise specified on the face of this document. This warranty is limited by the paragraphs below.

If buyer discovers a defect in any of the products covered by this Agreement, Buyer's exclusive remedy shall be to notify Seller immediately of such defect, and Seller, at its option, will repair or replace the Products, or refund the purchase price. Said notice shall be in writing and shall contain pertinent information to permit Seller to identify the Product which is claimed to be defective, including without limitation, the product type and serial number and a full description of the circumstances giving rise to the claim. Failure to properly notify Seller within warranty period of such defects or Buyers undertaking or authorizing others to undertake remedial action without Seller's express approval in writing shall immediately invalidate Seller's warranty obligations.

Upon timely receipt of proper notice, Seller shall inform Buyer of the remedial action which it intends to take, and if return of the product is elected by Seller, Seller will provide Buyer with a Return Authorization Number. Buyer must comply with Seller's shipment instructions (see paragraph below) and ship the defective Product immediately.

Seller reserves the right to reject any warranty claim not properly reported and any warranty claim on any item that has been the subject of abuse, misuse, neglect, improper installation or repair, alteration, modification, accident, improper return handling, use in or with equipment not suitable for such use, unusual physical, electrical, electro-magnetic stress, failure of electric power, external causes affecting the Product, or other factors which are not covered by the warranty.

Buyer must pay freight costs to Seller for returned Products. Buyer's packaging list must show the Return Authorization Number, invoice number, date and list of all returned goods. The carton must also show the Return Authorization Number. Seller will pay return freight to the Buyer and reimburse Buyer for its reasonable return freight costs for products which are subject to warranty adjustment. There is no other charge for warranty adjustment during the warranty period. When Buyer returns any Product, Buyer shall be responsible for all damage resulting from improper packing or handling and for loss in transit notwithstanding any defect or nonconformity in the Product. If it is found that a warranty adjustment is not available for any defect claimed by Buyer, for any reason, Buyer will be notified and the product will be returned at Buyer's expense.

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# HRL USER MANUAL

Page  
28

Buyer hereby acknowledges that it has not entered into the agreement in reliance upon any warranty or representation by any specific person or entity except for the warranties or representations set forth herein.

## Disclaimer

Seller shall not be liable for any loss, damage or penalty resulting from delay in delivery or performance when such delay is due to causes beyond the reasonable control of Seller, including, but not limited to, supplier delay, acts of God, civil or military authority, labor unrest, fire, riots, war, embargoes, unusually severe weather, shortage of power, explosion, or earthquake.

THIS WARRANTY IS THE ONLY WARRANTY BY SELLER WITH RESPECT TO THE PRODUCTS DELIVERED HEREUNDER AND MAY BE MODIFIED OR AMENDED ONLY BY A WRITTEN INSTRUMENT SIGNED BY A DULY AUTHORIZED OFFICER OF SELLER. EXCEPT AS HEREINABOVE PROVIDED, SELLER MAKES NO WARRANTIES, WHETHER EXPRESSED OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE WARRANTIES SET FORTH IN SECTION ABOVE EXTEND ONLY TO BUYER.

## Sellers Limited Liability

SELLER'S LIABILITY FOR BREACH OF THIS AGREEMENT, INCLUDING, WITHOUT LIMITATION, DELAY IN DELIVERY OR PERFORMANCE, SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE GOODS OR REFUND OF THE PURCHASE PRICE. IN NO EVENT SHALL SELLER BE LIABLE FOR COST OF PROCUREMENT OF SUBSTITUTE GOODS BY THE BUYER OR ANY SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, HOWEVER CAUSED, WHETHER FOR BREACH OF WARRANTY, NEGLIGENCE OR OTHERWISE.

## Product Returns

Returns of products are accepted at the sole discretion of Schlumpf, Inc. Products returned must be accompanied by a complete written description of the reason for the return and will not be accepted without prior notification and issuance of a Return Authorization Number (RA No.) by Schlumpf, Inc. Buyer is responsible for the cost of the return freight and the return may be subject to restocking fees. Extreme care should be made for the packaging of goods returned for credit. Buyer will be held responsible for reasonable damages to the return resulting from insufficient packaging and handling during transit.

[A complete statement of terms and conditions of sale are available from Schlumpf upon request.](#)

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